

Transfer of Aster gentryi Standl. to the genus Machaeranthera,
sect. Psilactis

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During the fall of 1972 Dr. R. C. Jackson kindly called my attention to the name Aster gentryi Standl. (1940), which he took to be synonymous with Machaeranthera mexicana Turner & Horne (1964). Indeed, at the same time he informed me that he had made the transfer of the former to Machaeranthera; in confirmation of this he subsequently, at my request, sent me a reprint of the article (Trans. Kans. Acad. Sci. 71: 522. 1968) in which this combination purportedly appeared. And it does. But, unfortunately, in making this transfer, Jackson was apparently unaware of Article 33 of the International Code of Botanical Nomenclature (1972) which states that after 1 January 1953 a new combination is not validly published unless its basionym is clearly indicated and "a full and direct reference given to its author and original publication with page or plate reference and date." Jackson's combination fails to comply with the words quoted. I therefore make the appropriate combination here: Machaeranthera gentryi (Standl.) Jackson ex Turner - based upon Aster gentryi Standl., Field Mus. Pub. Botany 22: 60. 1940.

In spite of the fact that I was senior author of a recent study of the section Psilactis (Turner & Horne, 1964), I would not have bothered to write this article except that I disagree with Jackson's assessment of the nomenclature, for he states that "there are no discernable differences between Aster gentryi and Machaeranthera mexicana", concluding therefore that they are synonymous.

Machaeranthera gentryi, as surmized by Jackson, is undoubtedly closely related to M. mexicana, but I cannot agree with his conclusion that the two belong to the same species. The former would key ("involucre 6 - 8 mm high") to M. crispa in the treatment of Turner and Horne (1964), but the latter belongs to a Baja California element with affinities to the $x = 5$ chromosomal line of the genus. Judging from morphology, M. gentryi presumably belongs to the $x = 4$ line.

Machaeranthera gentryi is known only from the type locality (Memelichi, Rio Maya, Chihuahua) where it was found growing in a meadow margin in a transitional pine forest at 7500 feet.

Both the holotype (FM!) and isotype (US!) are incomplete specimens, i.e., the plants lack most of their stem and roots (the well developed flowering branches were apparently taken from a fairly robust plant) so that our knowledge of the variation is limited. However, in view of the geographical isolation of the type locality (on the western side of the Sierra Madre Occidentale; M. mexicana being widespread at more inland sites), and the very striking differences (Table 1) readily apparent on the two plants at hand, I do not hesitate to accord the taxon specific rank in the Machaeranthera (Psilactis) alliance.

Table 1. Salient Features Separating Machaeranthera gentryi and M. mexicana.

<u>Character</u>	<u>mexicana</u>	<u>gentryi</u>
1. Involucral bracts (length)	4-6 mm	6-8 mm
2. Involucre (diameter when pressed)	10-14 mm	16-20 mm
3. Ray florets:		
number	30-50	over 50
ligule length	6-10 mm	10-14 mm
4. Disc florets:		
number	50-100	over 150
corolla length	3.2-4.2 mm	4.5-5.0 mm
5. Pappus length	2.6-3.2 mm	4.0-4.5 mm
6. Inflorescence	branches short, strict	branches long, flexuous
7. Upper-most (reduced) leaves	narrowly ampliate, scarcely cordate	broadly ampliate, nearly cordate

Literature Cited

- Jackson, R. C. 1968. Nomenclatorial (sic) notes on Happlopappus and Machaeranthera (Compositae). Trans. Kansas Acad. Sci. 71: 521-522.
- Turner, B. L. and D. Horne. 1964. Taxonomy of Machaeranthera sect. Psilactis (Compositae-Astereae). Brittonia 16: 316-331.